

p137.

$$(35) \quad (\sqrt{2z})^2 = (\sqrt{3z+12} - 2)^2$$

$$\sqrt{16} \stackrel{?}{=} \sqrt{36} - 2$$
$$4 = 6 - 2 \quad \checkmark$$

$$2z = 3z + 12 - 4\sqrt{3z+12} + 4$$

$$-z - 16 = -4\sqrt{3z+12}$$

$$(z+16) = (4\sqrt{3z+12})$$

$$z^2 + 32z + 256 = 16(3z + 12)$$

$$z^2 + 32z + 256 = 48z + 192$$

$$z^2 - 16z + 64 = 0$$

$$(z-8)^2 = 0$$

$$z = 8$$

$$\textcircled{28} (\sqrt{2p-5} - 2)^2 = (\sqrt{p-2})^2$$

$$2p-5 - 4\sqrt{2p-5} + 4 = p-2$$

$$-4\sqrt{2p-5} = -p-1$$

$$(4\sqrt{2p-5})^2 = (p+1)^2$$

$$16(2p-5) = p^2 + 2p + 1$$

$$32p - 80 = p^2 + 2p + 1$$

$$0 = p^2 - 30p + 81$$

$$\sqrt{2p-5} - 2 = \sqrt{p-2} \quad 0 = (p-27)(p-3)$$

$$\sqrt{54-5} - 2 = \sqrt{25}$$

$$\sqrt{49} - 2 = 5$$

$$\textcircled{p=27}$$

$$p=3$$

$$\sqrt{1} - 2 = \sqrt{1}$$

$$1-2 \neq 1$$

$$\textcircled{1} (\sqrt{2\sqrt{7x+2}})^2 = (\sqrt{3x+2})^2$$

$$(2\sqrt{7x+2})^2 = (3x+2)^2$$

$$4(7x+2) = 9x^2 + 12x + 4$$

$$28x + 8 = 9x^2 + 12x + 4$$

$$0 = 9x^2 - 16x - 4$$

$$0 = (9x+2)(x-2)$$

$$x = -\frac{2}{9} \quad x = 2$$

$$\sqrt{2\sqrt{7(-\frac{2}{9})}+2} = \sqrt{3(-\frac{2}{9})+2}$$

$$\sqrt{2\sqrt{-\frac{14}{9}}+2} = \sqrt{-\frac{2}{3}+2}$$

$$\sqrt{2\sqrt{\frac{4}{9}}} = \sqrt{\frac{4}{3}}$$

$$\sqrt{\frac{4}{9}} = \sqrt{\frac{4}{3}}$$

$$(\sqrt{2\sqrt{7x+2}})^4 = (\sqrt{3x+2})^4$$

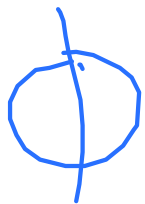
$$(2\sqrt{7x+2})(2\sqrt{7x+2}) =$$

$$\textcircled{23} (\sqrt{m+7} + 3)^2 = (\sqrt{m-4})^2$$

$$m+7 + 6\sqrt{m+7} + 9 = m-4$$

$$\frac{6\sqrt{m+7}}{6} = \frac{-20}{6} \leftarrow$$

$$\sqrt{m+7} \neq -\frac{10}{3}$$



$$6\sqrt{m+7} \neq -20$$